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BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

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In the Matter of	
Price Cap Performance Review for Local Exchange Carriers	CC Docket No. 94-1
Access Charge Review	CC Docket No. 96-262

COMMENTS
of the
GENERAL SERVICES ADMINISTRATION

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Table of Contents

Summary

This proceeding addresses the productivity offset, or "X–factor," included in interstate price cap plans to reflect the fact that telecommunications carriers are achieving productivity gains exceeding those for most other segments of the economy. The Commission has revised procedures to estimate productivity changes on two occasions since price caps were initiated in 1990. The U.S. Court of Appeals reversed and remanded the most recent prescription on two grounds.

From GSA's perspective as an end user, the productivity offsets employed in price cap plans have not provided reasonable limits on the prices for interstate services. Although the Commission has increased the X–factor twice, the interstate rates of return for major incumbent LECs have continued to escalate, and are now at all–time highs.

The court's remand provides an opportunity for the Commission to establish a procedure for deriving a productivity offset that is more effective and easier to update as conditions change. Thus, in the Notice the Commission identifies three "options" for computing the productivity offset.

In these Comments, GSA explains that the Commission should adopt a procedure that will set the X–factor to maintain stable industry rates of return over time. To meet this objective, GSA urges the Commission to adopt the third option identified in its Notice, which establishes the X–factor from direct measures of carriers' earnings.

GSA also explains that Option 3 offers practical advantages over options based on mathematical models to estimate historical changes in total factor productivity. For example, since this option places minimal demands on the resources of the Commission and carriers, it can be employed each year to maintain a productivity offset reflecting current conditions. Also, this option avoids the need for a separate consumer productivity dividend, an arbitrary adjustment which is one of the most contentious aspects of the price cap plan.

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COMMENTS
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GENERAL SERVICES ADMINISTRATION

The General Services Administration ("GSA") submits these Comments on behalf of the customer interests of all Federal Executive Agencies ("FEAs") in response to the Commission's Further Notice of Proposed Rulemaking ("Notice") released on November 15, 1999. The Notice seeks comments and replies on represcription of the productivity offset in the price cap formula.

I. INTRODUCTION

Pursuant to Section 201(a)(4) of the Federal Property and Administrative Services Act of 1949, as amended, 40 U.S.C. 481(a)(4), GSA is vested with the responsibility to represent the customer interests of the FEAs before Federal and state regulatory agencies. From their perspective as end users, the FEAs have consistently supported the Commission's efforts to bring the benefits of competitive markets to consumers of all telecommunications services.

The price cap formula contains a productivity offset, often called the "X–factor," to reflect the fact that local exchange carriers ("LECs") are expected to achieve productivity gains exceeding those for the economy as a whole. In its *1997 Price Cap Review Order*, the Commission set the productivity offset at 6.5 percent per year.[1] Several parties sought judicial review of this action. Pursuant to these petitions for review, the U.S. Court of Appeals for the District of Columbia Circuit reversed and remanded the Commission's decision, but stayed issuance of its mandate until April 1, 2000 to permit the Commission to conduct the instant proceeding.[2]

As end users of telecommunications services, the FEAs have a major stake in issues concerning the productivity offset that are identified for comment in this proceeding. Until competition provides effective controls over the charges by incumbent LECs, end users must rely on the Commission's price cap plan to ensure just and reasonable rates.

II. SHORTCOMINGS IN MODELS TO ESTIMATE PRODUCTIVITY INCREASES HAVE BEEN EVIDENT SINCE THE PRICE CAP SYSTEM WAS INITIATED.

A. The Commission has revised procedures to estimate productivity changes two times during the last 10 years.

In the *LEC Price Cap Order* released in 1990, the Commission established an incentive–based price cap system as the regulatory procedure designed to work more efficiently in a competitive market.[3] Initially, LECs under price cap regulation were required to share a portion of their earnings in excess of specified rates of return with their access customers by temporarily reducing the price cap for the subsequent period. The Commission prescribed two X–factors: a minimum 3.3 percent factor and

1 Notice, para 1, citing *Price Cap Performance Review for Local Exchange Carriers*, Fourth Report and Order in CC Docket No. 94-1 and Second Report and Order in CC Docket No. 96–262, 12 FCC Rcd 16642 (1997) ("*1997 Price Cap Review Order*").

2 Notice, para. 1 citing *USTA v. FCC*, 188 F.3d 521 (DC Cir. 1999).

3 *Policy and Rules Concerning rates for Dominant Carriers*, Second Report and Order, CC Docket No. 87–313, 5 FCC Rcd 6786, 6789 (1990) ("*LEC Price Cap Order*").

an optional 4.4 percent factor.[4] Carriers electing to use the larger factor were permitted to retain larger shares of their earnings.

The *LEC Price Cap Order* contemplated that the Commission would review the performance of the price cap system periodically.[5] As a result of the initial review in 1995, the Commission increased the minimum X–factor from 3.3 percent to 4.0 percent, and established two optional X–factors at 4.7 percent and 5.3 percent, respectively.[6] In the next and most recent review order in 1997, the Commission revised the price cap plan by eliminating all sharing requirements and prescribing an X–factor of 6.5 percent.[7]

Historical measures of productivity changes have been the principal determinants of all X–factors employed in the interstate price cap plans. In 1997, the Commission adopted the most elaborate plan for measuring past productivity changes by using models to estimate total factor productivity ("TFP") increases for incumbent carriers. The TFP models adopted by the Commission employ three types of inputs — labor, material, and capital.[8]

In the TFP models, indices reflecting changes in the quantities of labor, materials, and capital are weighted and aggregated in a single input index.[9] Outputs can be measured either in terms of the physical units of a service, such as minutes or calls, or by dividing revenues by an index of output prices.[10]

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4 *Id.* at 6787.

5 *Id.* at 6789.

6 *Price Cap Performance Review for Local Exchange Carriers*, First Report and Order, CC Docket No. 94–1, 10 FCC Rcd 8961, 9055–9056 (1995) ("*1995 Price Cap Review Order*").

7 *1997 Price Cap Review Order*, 12 FCC Rcd at 16645.

8 Notice, para. 13.

9 *Id.*

10 *Id.*, para. 12.

In addition to the historical aggregate measures of productivity changes, each of the X–factors has included a consumer productivity dividend ("CPD") set at 0.5 percent.[11] The CPD was included for two reasons — (1) to provide additional benefits for ratepayers and (2) to account for the expectation that future productively growth would be greater than past growth because a more efficient regulatory scheme was being adopted.[12]

B. The appellate court identified several infirmities in the procedure most recently adopted by the Commission.

Soon after the *1997 Price Cap Review Order* was released, Petitioners raised a variety of challenges to the decision.[13] Recently, the court reversed and remanded two aspects of the analysis supporting the Commission's prescription of a 6.5 percent X–factor.[14]

First, the court questioned the Commission's rationale for selecting 6.0 percent as the historical component of the X–factor.[15] The court stated that while the Commission acknowledged a "zone of reasonableness" of 5.2 to 6.3 percent, it selected a value of 6.0 percent, which is in the upper end of this range.[16] Although the Commission explained that it chose the 6.0 percent target because this value was more consistent with the most recent data, the court questioned this reasoning, stating that the "trend" referenced by the Commission could be part of an overall cyclical pattern, with a decline in future years.[17]

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11 Notice, paras. 8–10.

12 *Id.*, para. 8.

13 *Id.*, para. 17.

14 *Id.*

15 USTA v. FCC, 188 F.3d at 525–26.

16 Notice, para. 18.

17 *Id.*

Second, the court in its remand sought an explanation of the 0.5 percent CPD included in the overall 6.5 percent X–factor adopted by the Commission.[18] In this regard, the court noted that the Petitioners did not dispute that it is logical to include a CPD corresponding to the productivity increase that should be expected from elimination of earnings sharing. However, the court found that retention of the 0.5 percent CPD required a comparison of the productivity effects of abandoning earnings sharing with the initial rationale for adopting that CPD in 1990, and found that such a comparison was not evident in the Commission's analysis.[19]

C. Productivity offsets employed over the decade have not effectively constrained carriers' prices.

GSA submits that experience has pointed to major empirical shortcomings in the operation of the X–factor. The X–factors derived from the computational procedures used for the last 10 years have lead to results that are inequitable to ratepayers and potentially inequitable to carriers as well. Also, the procedures rely on indirect measures and complex models, which are controversial, difficult to administer, and nearly always out of date.

The experienced rates of return for LECs under price cap regulation provide the most dramatic evidence of the failure of the X–factor to reflect actual productivity changes in the telecommunications industry. According to a report published by the Commission's Industry Analysis Division, 1998 interstate rates of return for Regional Bell Operating Companies ("RBOCs") ranged from 9.9 percent to 22.7 percent.[20] The unweighted average rate of return for these carriers was 15.33 percent, which is more

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18 USTA v. FCC, 188 F.3d at 527.

19 *Id.*

20 Industry Analysis Division, *Trends in Telephone Service*, September 1999 ("FCC Trends Report"), Table 15.1.

than four percentage points above the 11.25 percent rate of return target employed in the universal service cost calculations.[21] In fact, only two units of one RBOC experienced a rate of return less than 11.25 percent, as indicated in the table below.

1998 Interstate Rates of Return of Bell Operating Companies

Bell Operating Company	Rate of Return
Ameritech Operating Companies	22.72 %
Bell Atlantic Companies	
Bell Atlantic	14.09 %
Bell Atlantic (NYNEX)	11.40 %
BellSouth Telephone Companies	20.80 %
SBC Communications, Inc.	
Southwestern Bell Telephone Co.	9.91 %
Nevada Bell	16.02 %
Pacific Bell	15.48 %
Southern New England Telephone Co.	10.99 %
U S WEST Communications, Inc.	16.53 %
Mean	15.33 %

Source: FCC Trends Report

The tabulation shows that the productivity offset does not accomplish the objective of constraining the interstate rate of return for major carriers under price cap regulation.

Moreover, the failure of the productivity offset to hold LECs' earnings in reasonable balance is not a recent phenomenon, but characteristic of the entire period

21 *Federal–State Joint Board on Universal Service*, CC Docket No. 96–45, Report and Order released May 8, 1997, para. 250.

that the interstate price cap system has been employed. Although the Commission raised the offset in 1995 and again in 1997, the mean rate of return for RBOCs rose continuously during the period, as indicated in the table below.

Rate of Return of Bell Operating Companies for 1991–1998

Year	Mean Rate of Return
1991	11.34 %
1992	12.77 %
1993	13.72 %
1994	13.86 %
1995	14.27 %
1996	14.83 %
1997	14.94 %
1998	15.33 %

Source: FCC Trends Report. The table shows simple averages of the carriers' rates of return in each year.

Indeed, the mean rate of return for the RBOCs has increased each year since price caps was initiated.

Proceedings for represcription in 1995 and 1997 relied on mathematical procedures with numerous assumptions. The process of determining the productivity offset — which has become "a battle of experts" in paper proceedings — is at least as complex as that necessary to establish a rate of return target under earnings regulation.

Notwithstanding the complexities, carriers under the price cap plan have enjoyed sharply increasing rates of return over the last decade. The use of an historical data series to estimate a productivity target is not a "self–adjusting" procedure. Moreover, the approach is too cumbersome to modify more than a few times in a decade.

The X–factor has not provided an effective means of differentiating performance for efficient and inefficient carriers. For example, all LECs must acquire computers each year. Indeed, this cost item should be a reasonably significant portion of total operating cost, and roughly the same proportion of the total annual cost for all LECs. Thus, if computer costs should decline in the future more than projected on the basis of historical data, *all* LECs will tend to experience productivity increases greater than the X–factor. As a result, each LEC will be rewarded with a price increase in spite of the fact that its performance was not unique in any way.

On the other hand, if computer costs should decline less than projected on the basis of historical data, or even rise, *all* LECs will tend to experience productivity increases less than the X–factor. In this case, each carrier will be penalized in spite of the fact that it took no action that was uniquely inefficient or unwise.

Furthermore, inequities owing to the faulty estimates will continue for some time — possibly as long as three or four years under the represcription cycle employed since price caps were initiated. In the meantime, the system will not be working effectively to reduce costs or to improve productive efficiency.

III. THE COURT'S REMAND PROVIDES AN OPPORTUNITY TO ADDRESS DEFICIENCIES IN THE OPERATION OF THE PRODUCTIVITY OFFSET.

A. The Commission should adopt Option 3, which establishes the productivity offset from direct measures of earnings.

The court's remand provides an opportunity for the Commission to address the shortcomings of the existing system. Indeed, the Commission suggests three options for setting the X–factor:

Option 1 Employ the staff's "1997 TFP study" with modifications to remedy the infirmities observed by the court and several other specific deficiencies.

Option 2 Use a "1999 TFP study," a new model developed by the staff which substitutes an independent measure of capital price changes for the changes used in the previous study and recalculates the effect on the compensation for capital inputs.

Option 3 Employ a staff "imputed X study" that determines from reported expenses and revenues the X–factor that would have produced a competitive level of capital compensation during the period between price cap reviews.[22]

Appendices A, B and C of the Notice contain detailed descriptions of these options. The Commission seeks comments on the best option for deriving the X–factor to be used in the price cap plan in future years.[23]

Option 1 uses most of the methodology adopted for assessing historical changes in TFP that the Commission adopted in 1997. However, this option addresses the issues identified by the court and implements several additional changes in the procedures for estimating historical productivity changes.[24]

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22 Notice, paras. 2–3.

23 *Id.*, para. 20.

24 *Id.*, pp. 20–31.

Since Option 1 is structurally similar to the present plan, this choice would not make the procedure easier to update, nor would it enhance the Commission's ability to control the earnings of incumbent LECs. Also, Option 1 relies substantially on data outside the regulatory system. For example, this option requires independent price series from outside economic reports to estimate a "competitive cost of capital."[25] Moreover, as the Commission acknowledges, Option 1 has many potential "biases." Indeed, Appendix A of the Notice contains nearly six pages of text discussing potential biases in its data requirements and methodology, and the potential impact of these biases on the X–factor estimates.[26]

Option 2 also provides estimates of historical productivity changes. Although this option contains a number of refinements in the Option 1 methodologies, its ability to maintain reasonably stable earnings results is untested. Also, the mathematical models used in Option 2 appear to be even more cumbersome than those in Option 1, considering the number and complexity of the equations in Appendix B of the Notice.[27]

In addition, Option 2 employs a considerable amount of exogenous information, including data from the Bureau of Economic Analysis of the U.S. Department of Commerce and the Bureau of Labor Statistics of the U.S. Department of Labor.[28] Moreover, Option 2 relies on extensive data describing the operations of carriers, including revenues by type (*e.g.* basic local service, switched access, special access), number of access lines by service (*e.g.* residence, business, public), as well as interstate and intrastate switched access minutes.[29] Indeed, the Notice states that the

25 *Id.*, p. 22.

26 *Id.*, pp. 25–31.

27 *Id.*, pp. 32–67.

28 *Id.*, p. 33.

29 *Id.*, p. 35.

procedure employs the "most recent, consistent, and comprehensive data generally and publicly available."[30] However, from the standpoint of ease of interpretation and operation, and the ability to obtain updates efficiently, this option provides little or no improvement over the existing system.

Option 3 is structurally different from either of the other two options because it provides an imputed value of the X–factor rather than estimates of historical productivity changes. This option has several significant advantages. For example, the approach relies solely on reported interstate operating revenues, operating expenses, and net investments, as well as an estimate of the elasticity of demand for interstate telephone services. Moreover, Option 3 avoids the arbitrary computational procedures questioned by the court, employs a modest amount of data that relates directly to the carriers for whom it is to be applied, and requires relatively few assumptions that may be challenged.

GSA urges the Commission to adopt Option 3. This option yields the X–factor that is expected to produce an unchanged industry rate of return from the previous year.[31] Use of this approach will avoid major upward or downward trends and significant year–to–year variations in earnings for the carriers under surveillance because the option is intrinsically "self–correcting" — if returns increase, the target for the following year can be set higher, and if returns fall the target can be reduced.

Option 3 will not diminish the incentive for a LEC to maintain and increase its productivity. Since the X–factor is established on the basis of industry experience, a LEC which exceeds industry productivity will earn above its cost of capital. Of course, a LEC with lower–than–average productivity will experience lower earnings. The

30 *Id.*, p. 32.

31 *Id.*, pp. 68–75.

opportunity to earn a fair rate of return is not a guarantee, but LECs which consistently outperform the industry will be rewarded. The problem over the last decade has been that all LECs have been rewarded with higher earnings because of inadequate X–factors whether their productivity performance was superior or not.

Perhaps most importantly, updates can be implemented easily because of the simplicity of the inputs and computational procedures. Indeed, the relative simplicity of the three options is demonstrated by page counts for the three Notice appendices employed to describe them. Options 1 and 2 require 12 pages and 36 pages respectively, while Option 3, with which parties have no starting familiarly, requires only eight pages.

B. The offset should be updated each year to match current conditions in telecommunications markets.

The paramount advantage of a system that can be updated more readily is that it can be updated more often. With the rapid pace of change in telecommunications, it is vital to have the capability to adjust the productivity offset frequently and to establish its value on the basis of current data.

GSA urges the Commission to adopt an annual review period for the productivity offset. Also, GSA recommends that the offset be established on the basis of data for the most recent three year–to–year changes, with equal weight to each. The choice of a three–year period with equal weighting should avoid adjustments resulting from extraordinary events, but still base decisions on data that reflects current technology, competitive conditions, and regulatory practices.

Appendix C of the Notice includes a table that displays the X–factor required to maintain an unchanged rate of return from the previous year using Option 3. This table is reproduced on the following page of these Comments.

Productivity Offset to Maintain Constant Rate of Return

Year	X–factor
1992	5.50%
1993	5.94%
1994	5.51%
1995	6.83%
1996	7.90%
1997	6.57%
1998	8.51%

Source: Notice Table C–4.

With equal weighting of values for the last three years, the current productivity offset would be 7.66 percent. GSA recommends that a 7.66 percent productivity offset be adopted at the present time. This decision should be considered again when 1999 data becomes available.

The stability of GSA's recommended plan can be demonstrated using the data in the table above. For example, in 1998 the indicated productivity offset would have been 7.10 percent, using the values in the table for 1995 through 1997, inclusive. The continuing need to implement increasing productivity offsets is demonstrated by the steadily rising series of three–year averages: 5.65 percent, 6.09 percent, 6.75 percent, 7.10 percent, and 7.66, progressing from 1995 through 1999.

C. The Commission should not designate a separate consumer productivity dividend.

Since the productivity offset was first established, it has included two components — an estimate of historical productivity changes based on mathematical analysis and a CPD based entirely on judgment. Since the process for setting the CPD has been subjective, it is not surprising that the factor has been one of the most controversial parts of the price cap plan and also a focal point of the court remand.

In GSA's view, it may never be possible to specify an analytically defensible procedure for determination of the appropriate CPD. Consequently, if the Commission selects Option 3 with annual updates as recommended in these Comments, GSA urges the Commission not to adopt a separate CPD. With a rising target to reflect greater achievements, Option 3 alone should provide a sufficient brake on escalating earnings.

IV. CONCLUSION

As a major user of telecommunications services, GSA urges the Commission to implement the recommendations set forth in these Comments.

Respectfully submitted,

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January 7, 2000

CERTIFICATE OF SERVICE

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